US ERA ARCHIVE DOCUMENT

Washingto	on State Department of E	Ccology - Industrial Footprint Project					
NPI Footp	rint Worksheet - Environm	nental Domain					
Identifier	Aspect	<u>Indicator</u>	Units of measurement	<u>2006</u>	<u>2007</u> <u>fra</u>	ctional change	Type of scoring
ENV1	Air Quality	Polycyclic Aromatic Hydrocarbon (PAH) emissions	Pounds per air dried ton of production per pollutant	0.005	0.0056	0.12	Base year
ENV2	Air Quality	Formaldehyde emissions	Pounds per air dried ton of production	0.0433	0.042	-0.030023095	Base year
ENV3	Air Quality	Chloroform emissions	Pounds per air dried ton of production	0.0219	0.0219	0	Base year
ENV4	Air Quality	NOx emissions	Pounds per air dried ton of production	2.857	2.366	-0.171858593	Base year
ENV5	Air Quality	SOx emissions	Pounds per air dried ton of production	4.772	2.98	-0.375523889	Base year
ENV6	Air Quality	Particulate matter (PM) emissions	Pounds per air dried ton of production	1.473	1.406	-0.045485404	Base year
ENV7	Air Quality	Carbon dioxide emissions	Pounds per air dried ton of production	201162.92	187950.7	-0.045465404	Base year
ENV8	Air Quality Air Quality	Total emissions compared to permit limit	Ratio of emissions to permit limit	0.5834	0.5834	-0.003017202	Base year
ENV9	Air Quality	Total greenhouse gas emissions in carbon dioxide equivalent units	Metric tons carbon equivalents per air dried ton of production	0.17	0.11	-0.352941176	Base year
ENV10	Air Quality	Total reduced sulfur (TRS) emissions	Pounds per air dried ton of production	0	0	0	Base year
ENV11	Air Quality	Methylethylketone (MEK) emissions	Pounds per air dried ton of production	0.0031	0.0035	0.129032258	Base year
ENV12	Air Quality	Lead emissions	Pounds per air dried ton of production	0.0005	0.0005	0	Base year
ENV13	Air Quality	Mercury emissions	Pounds per air dried ton of production	0.00003467	0.000033081	-0.045832132	Base year
ENV14	Air Quality	Acetaldehyde emissions	Pounds per air dried ton of production	0.0184	0.0181	-0.016304348	Base year
ENV15	Air Quality	Propionaldehyde emissions	Pounds per air dried ton of production	0.0026	0.0025	-0.038461538	Base year
ENV16	Air Quality	Hydrochloric acid emissions	Pounds per air dried ton of production	0.009	0.0088	-0.022222222	Base year
ENV17	Air Quality	Barium emissions	Pounds per air dried ton of production	0.0016	0.0016	0	Base year
ENV18	Air Quality	Manganese emissions	Pounds per air dried ton of production	0.0152	0.0148	-0.026315789	Base year
ENV19	Energy Consumption	Net consumption of purchased electricity and fuel	Consumption in megajoules minus sales in megajoules	3169286000	3094956000	-0.023453232	Base year
ENV20	Energy Consumption	Energy used/sold from cogeneration	Megajoules from cogeneration per air dried ton of production	0	0	0	Base year
ENV21	Energy Consumption	Intensity of energy used per unit production	Gigajoules consumed from all sources per air dried ton of production	20.35	19.88	-0.023095823	Target

			Raio of megajoules from renewable sources to total				Target
ENV22	Energy Consumption	Percent of energy use from renewable sources	megajoules consumed	90	91	0.011111111	
							Assigned
ENV23	Environmental Management	Index of EMS levels	0, 1, or 2	1	2	1	
			Ratio of tons of raw material inputs from recycled				Target
		•	and/or re-used sources to tons of raw material inputs				
ENV24	Raw Materials	sources	total	90.1	91.51	0.015649279	
			Ratio of tons of raw fiber and biomass energy				Target
		Percent raw fiber and biomass energy materials from					
ENV25	Raw Materials	FSC/SFI certified sources	raw fiber and biomass energy materials total	72	65	-0.097222222	
							Base year
ENV26	Raw Materials	Average percent of recycled fiber content in products		41	40	-0.024390244	
			Tons of raw materials minus tons of raw materials				Target
			that are recycled or re-used per air dried ton of				
ENV27	Raw Materials	Raw material intensity	production	1.25	1.22	-0.024	
ENV28	Regulatory Compliance	Percent of monitoring period in compliance	Percent	100	100	0	Target
ENV29	Regulatory Compliance	Percent of time below permit limits	Percent	100	100	0	Target
			Ratio of tons of waste recycled, re-used, or				Base year
ENV30	Waste Disposal	Percent recycled, composted or re-used	composted on or off site to total tons of waste	51.9	49.6	-0.044315992	
							Base year
			Ratio of tons of waste sent to landfill to total tons of				
ENV31	Waste Disposal	Percent landfilled to total tons	waste generated	47.8	50.1	0.048117155	
			Cubic feet of water used from non-recycled sources,				Base year
ENV32	Water Intensity	Net water consumption	less total outflow	426164282	418081726	-0.018965822	
			Cubic meters of raw water intake per air dried ton of				Target
ENV33	Water Intensity	Raw water intake per unit production	production	2737	2685	-0.018998904	
		Temperature difference between incoming and					Base year
ENV34	Water Intensity	outgoing water	MMBTU/day	2187034	1943653	-0.111283592	
							Base year
			Annual average pounds per air dried unit of				
ENV35	Water Quality	Discharged BOD as percent of permit limit	production	1.65	1.13	-0.315151515	
							Base year
		Total Suspended Solids (TSS) discharged as percent	Annual average pounds per air dried unit of				·
ENV36	Water Quality	of permit limit	production	3.49	2.22	-0.363896848	
	-						Base year
			Annual average pounds per air dried unit of				•
ENV37	Water Quality	Adsorbably Organic Halide (AOX) output	production	0	0	0	
		Percent of undeveloped acres of facility owned land			-		Target
ENV38	Biodiveristy Conservation	protected as habitat	Ratio of protected acres to total acres	22	22	0	
			1				

Target or permit limit	Type of target	Raw score	<u>Indicators</u>	Equal weight factor	Equal weight score	Assigned weight	Weighted indicators	Assigned weight factor
	Minimize	0	1	0.026315789	0		2	1 0.023255814
	Minimize	3.002309469	1	0.026315789	0.079008144		2	1 0.023255814
	Minimize	0	1	0.026315789	0		2	1 0.023255814
	Minimize	17.18585929	1	0.026315789	0.452259455		2	1 0.023255814
	Minimize	37.55238894	1	0.026315789	0.988220761		2	1 0.023255814
	Minimize	4.548540394	1	0.026315789	0.119698431		2	1 0.023255814
	Minimize	6.567920171	1	0.026315789			2	1 0.023255814
	Minimize	0	1	0.026315789	0		3	2 0.046511628
	Minimize	35.29411765	1	0.026315789	0.92879257		3	2 0.046511628
	Minimize	0	1	0.026315789	0		2	1 0.023255814
	Minimize	0	1	0.026315789	0		2	1 0.023255814
	Minimize	0	1	0.026315789	0		2	1 0.023255814
	Minimize	4.583213153	1	0.026315789	0.120610872		2	1 0.023255814
	Minimize	1.630434783	1	0.026315789	0.042906178		2	1 0.023255814
	Minimize	3.846153846	1	0.026315789	0.101214575		2	1 0.023255814
	Minimize	2.22222222	1	0.026315789	0.058479532		2	1 0.023255814
	Minimize	0	1	0.026315789	0		2	1 0.023255814
	Minimize	2.631578947	1	0.026315789	0.069252078		2	1 0.023255814
	Minimize	2.345323205	1	0.026315789	0.061719032		2	1 0.023255814
	Maximize	17	1	0.026315789	0.447368421		2	1 0.023255814
12	Minimize	100	1	0.026315789	2.631578947		3	2 0.046511628

100			<u> </u>	T			T	
100	Maximize	0.0035	1	0.026315789	9.21053E-05	3	2	0.046511628
100		0.0033	1	0.020313707	7.21033E 03	3		0.040311020
	Maximize	100	1	0.026315789	2.631578947	1	0.5	0.011627907
100								
	Maximize	91.51	1	0.026315789	2.408157895	2	1	0.023255814
100)							
	Maximize	65	1	0.026315789	1.710526316	2	1	0.023255814
	Maximize	100	1	0.026315789	2 621579047	2	1	0.022255014
0.5		100	1	0.020313789	2.631578947	<u>Z</u>	1	0.023255814
0.3								
	Minimize	40.98360656	1	0.026315789	1.078515962	1	0.5	0.011627907
100	Maximize	100	1	0.026315789	2.631578947	3	2	0.046511628
100	Maximize	100	1	0.026315789	2.631578947	2	1	0.023255814
	Maximize	100	1	0.026315789	2.631578947	2	1	0.023255814
C								
) / · · ·		1	0.006215700				0.046511620
	Minimize	0	1	0.026315789	0	3	2	0.046511628
	Minimize	1.89658222	1	0.026315789	0.049910058	3	2	0.046511628
15		1.07030222	1	0.020313707	0.047710030	3	2	0.040311020
	Minimize	0.558659218	1	0.026315789	0.014701558	1	0.5	0.011627907
	Minimize	11.12835923	1	0.026315789	0.292851559	2	1	0.023255814
	Minimize	31.51515152	1	0.026315789	0.829346093	2	1	0.023255814
	Minimize	36.38968481	1	0.026315789	0.957623285		1	0.023255814
	IVIIIIIIIZC	30.30700401	1	0.020313709	0.737023263	2	1	0.023233614
	Minimize	0	1	0.026315789	0	2	1	0.023255814
100								
	Maximize	22	1	0.026315789	0.578947368	1	0.5	0.011627907
		Sum:	38	Sum:	27.35251594	Sum:	43	Sum:

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Final weighted score	Comments
	Assuming this is not a permited pollutant so no target is
0	currently available.
	Assuming this is not a permited pollutant so no target is
0.06982115	currently available.
	Assuming this is not a permited pollutant so no target is
0	currently available.
	Using base year for now. Need to convert permit limit into a
0.399671146	target per ton of production.
	Using base year for now. Need to convert permit limit into a
0.873311371	target per ton of production.
	Using base year for now. Need to convert permit limit into a
0.105780009	target per ton of production.
	Using base year for now. Need to convert permit limit into a
0.15274233	target per ton of production.
0	Using base year for now.
	Need to develop target based on percent reduction from base
1.641586867	year.
	Using base year for now. Need to convert permit limit into a
0	target per ton of production.
	Assuming this is not a permited pollutant so no target is
0	currently available.
	Assuming this is not a permited pollutant so no target is
0	currently available.
	Assuming this is not a permited pollutant so no target is
0.106586352	currently available.
	Assuming this is not a permited pollutant so no target is
0.037917088	currently available.
	Assuming this is not a permited pollutant so no target is
0.089445438	currently available.
	Assuming this is not a permited pollutant so no target is
0.051679587	currently available.
	Assuming this is not a permited pollutant so no target is
0	currently available.
	Assuming this is not a permited pollutant so no target is
0.06119951	currently available.
	Using base year for now.
0.0545424	
	Using base year for now.
0.395348837	
	Industry best target, as determined by John Talberth.
4.651162791	
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	Assuming target is 100% for now.
0.000162791	
	Need to directly assign score based on 0, 1 or 2. For now,
1.162790698	assuming 1, 50, and 100.
	Assuming target is 100% for now.
2.128139535	
	Assuming target is 100% for now.
1.511627907	
	Using base year for now. Need to reasearch target.
2.325581395	
2.020001030	Industry best target, as determined by John Talberth.
	and a second of some removed.
0.476553565	
	Assuming target is 100% for now.
	should drop time above limits, focus on time below.
2.323381393	Using base year for now. But hard to score due to
2 225591205	interaction between ENV 30, 32, and 33.
2.325381393	
	Base year used for now. 0 is the most desireable target.
	Need to develop a scoring protocol when a target is 0.
0	
	Modify scoring so negative = 100. Otherwise, base year.
0.088213127	
	Industry best target, as determined by John Talberth.
0.006496037	
	Using base year for now.
0.258799052	
	Using base year for now. 0% equals a score of 100, 100% =
	a score of 0. Need to convert permit limit into a target per
0.7329105	ton of production.
	Using base year for now. 0% equals a score of 100, 100% =
	a score of 0. Need to convert permit limit into a target per
0.84627174	ton of production.
	Using base year for now. 0% equals a score of 100, 100% =
	a score of 0. Need to convert permit limit into a target per
0	ton of production.
	Assuming 100% for now. Need to develop target.
0.255813953	
27.78648076	
27.700.10070	

Washingto	on State Department of Eco	ology - Industrial Footprint Project						
NPI Footp	rint Worksheet - Social Dom	ain						
Identifier	Aspect	<u>Indicator</u>	Units of measurement	2006	2007	fractional change	Type of scoring	Target or permit limit
SOC1	Community Involvement	Volunteerism for local education	Hours per employee	0	0	0	Base year	
SOC2	Community Involvement	Volunteerism for community benefit	Hours per employee	0	0	0	Base year	
SOC3	Community Involvement	Number of social awards	Number	0	1	0	Assigned	
SOC4	Environmental Nuisance	Number of odor complaints	Number	2	3	0.5	Assigned	
		_	Truck vehicles miles traveled per air dried ton of					
SOC5	Environmental Nuisance	Intensity of operational traffic	production	35.1	33.3	-0.051282051	Base year	
		· · ·	1 for confirmed compliance without any fines, 0					
SOC6	Health and Safety	OSHA Compliance	otherwise	1	0	-1	Assigned	
		I I						
SOC7	Health and Safety	Safety incidents, injuries, accidents	Incidents per 100 employees	19	15	-0.210526316	Base year	
SOC8	Health and Safety	Wellness programs and benefits	Dollars per employee	0	0	0	Base year	
		Image programs and concine					Dage your	
SOC9	Health and Safety	Trained incident responders	Number per 100 employees	6	52	7.666666667	Base year	
SOC10	Health and Safety	Emergency and safety planning	1 for plan on file, 0 otherwise	1	1	7.00000007	+	
	,							
SOC11	Human Rights	Demographic diversity	Index of representational equity from IRE calculation below (beginning in cell D28), scored on a scale of 0 to 1, where 0 = perfect match with US diversity	0.301	0.300576	-0.001407737	' Base year	
SOC12	<u> </u>		1 for all classes of benefits provide, 0 otherwise	0.301	0.300370	-0.001407737		
SOC12	Employee Relations	Benefits for family leave	_	1	1	0	Assigned	
00012	England Baldiana	We dealers and of a disc	1 if employee satisfaction survey is used, 0 if otherwise	0	0		A	
SOC13	Employee Relations	Workplace satisfaction		U	0	0	Assigned	
00014	E 1 Dis	XXX 11 1	Ratio of highest paid employee to lowest paid			0		
SOC14	Employee Relations	Wage distribution gap	employee	0.75	0.7	0.000000	Base year	
SOC15	Employee Relations	Labor representation	Percent	0.75	0.7	-0.066666667	Target	10
			Ratio of total number of employees resigning, fired,			_		
SOC16	Employee Relations	Workforce turnover rate	or laid off to average workforce	1	0.5	-0.5	Base year	•
SOC17	Employee Relations	Employee training	Total training hours per employee	15	15	0	Base year	
SOC18	Employee Relations	Benefits beyond compliance	Dollars per employee	53,546	36,255	-0.322918612		
SOC19	Employee Relations	Labor relation incidents	Incidents per 100 employees	1.7	7.7	3.529411765	-	
			IRE Calculation (SOC11)	2006	2007	U.S. shares	Mill shares 06	Mill shares 07
			White Non-Hispanic	230	223	0.664		
			Black	1	1	0.128	0.004166667	0.00423728
			Asian	3	3	0.044	0.0125	0.01271186
			Native American	4	7	0.01	0.016666667	0.02966101
			Hispanic	2	2	0.148	0.008333333	
			Pacific Islander	0	0	0.002		

Other	0	0	0.004	0	0
Sum	240	236			Sum
					Sum/2=IRE

Type of target	Dow soore	Indicators	Equal weight factor	Fauel weight soore	Assigned weight	Weighted indicators	Assigned weight factor	Final weighted score	Comments
Maximize Maximize	Naw score	<u> </u>	0.052631579		Assigned weight	veignted mulcators	0.054054054		Comments
Maximize	0	1	0.052631579		2	1	0.054054054		
Maximize	50	1	0.052631579		1	0.5			
Minimize	50	1	0.052631579		3	3 2	0.108108108		
William	30	1	0.032031377	2.031370747		,	0.100100100	3.403403403	
Minimize	5.1282051	1	0.052631579	0.269905533	1	0.5	0.027027027	0.138600139	
William	3.1202031	1	0.032031317	0.207703333		0.5	0.027027027	0.130000137	
Maximize	0	1	0.052631579	0	3	$_{2}$	0.108108108	0	
			0.052051577				0.100100100		Need to develop long term target, perhaps from industry best
Minimize	21.052632	1	0.052631579	1.108033241	3	$_{2}$	0.108108108	2.275960171	reported in sustainability plans.
Maximize	0	1	0.052631579		1	0.5			
		1	3.022031377			0.5	0.027027027		Need to develop long term target. Does not make sense to
Maximize	100	1	0.052631579	5.263157895	2	2	0.054054054	5.405405405	base score on continual increases.
Maximize	100	1	0.052631579		2		0.054054054	5.405405405	
									IRE calculation below. Assumes racial/ethnic omposition
									similar to that of the U.S.A Perhaps county level
									distribution would be a better target. Base year used for
									now. 0 is the most desireable target. Need to develop a
Minimize	0.1407737	1	0.052631579	0.007409142	2	2	0.054054054		scoring protocol for a target of 0.
Maximize	100	1	0.052631579		1	0.5		2.702702703	
			0.002001079	0.200107030			0.027027027	21702702700	
Maximize	0	1	0.052631579	0	2	2	0.054054054	0	
Minimize	0	1	0.052631579	0	1	0.5	0.027027027	0	Need to develop long term target.
Maximize	70	1	0.052631579		2		0.054054054		Assumes target is 100% for now.
Minimize	50	1	0.052631579	2.631578947	2	2	0.054054054	2.702702703	Need to develop long term target.
									Need target for this from American Society of Training and
Maximize	100	1	0.052631579	5.263157895	2	2	0.054054054		Development.
Maximize	100	1	0.052631579	5.263157895	1	0.5	0.027027027		Need to develop long term target.
Minimize	0	1	0.052631579	0	1	0.5			Need to develop long term target.
	Sum:	19			Sum				
Abs(x-y) 06	Abs(x-y) 07								
	3 0.2809153								
0.123833333	3 0.1237627							_	
0.0315	5 0.0312881								
0.006666667	7 0.019661								
0.139666667	7 0.1395254								
0.002	0.002								

0.004 0.004			
0.602 0.6011525			
0.301 0.3005763			

Washingt	on State Department of Eco	ology - Industrial Footprint Project					
NPI Footp	rint Worksheet - Economic L	Oomain					
<u>Identifier</u>	<u>Aspect</u>	Indicator	Units of measurement	2006	<u>2007</u>	fractional change	Type of scoring
ECON1	Economic Impact	Regional economic impact - income	Million dollars per air dried ton of production	47.8	47.97	0.003556485	Base year
ECON2	Economic Impact	Regional economic impact - tax revenue	Million dollars per air dried ton of production	3.21	3.23	0.00623053	Base year
ECON3	Economic Impact	Regional economic impact - jobs	Number per air dried ton of production	806	798	-0.009925558	Base year
ECON4	Regional Economy	Percent of revenue regionally (goods)	Percent	17.1	17.12	0.001169591	Base year
ECON5	Regional Economy	Percent of purchases procured regionally (services,	Percent	10.2	10.17		Base year
		including utilities)				-0.002941176	-
ECON6	Economic Impact	Net capital investment in facility	Ratio of capital investment (spread over years) to	0.43	0.75		Target
			depreciation, replacement and maintenance			0.744186047	
ECON7	Community Involvement	Total spending on habitat conservation/restoration	Dollars	0	500		Base year
	i i i i i i i i i i i i i i i i i i i	T				0	, , , , , , , , , , , , , , , , , , , ,
ECON8	Community Involvement	Contributions to charities and non-profit	Dollars	46099	49128		Base year
	i i i i i i i i i i i i i i i i i i i	organizations				0.065706414	, , , , , , , , , , , , , , , , , , , ,
ECON9	Community Involvement	Contributions to local education	Dollars	10385	11308	0.08887819	Base year
ECON10	Economic Development	Reycled/reused market creation	Dollars	59679925	62673741	0.05016454	Base year
ECON11	Jobs	Average compensation including benefits	Dollars	79942	80976	0.012934377	Base year
ECON12	Jobs	Percent of total jobs at family wage level	Percent	98.72	98.68	-0.000405186	Target
ECON13	Jobs	Percent of total jobs providing benefits	Percent	100	100	0	Target
ECON14	Customer Satisfaction	Claims paid including returns	Value of claims paid per million dollars in sales	1778	1310	-0.263217098	Base year
			1 1			0.203217070	, , , , , , , , , , , , , , , , , , ,

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Target or permit limit	Type of target	Raw score I	Indicators	Equal weight factor	Equal weight score	Assigned weight	Weighted indicators	Assigned weight factor
	Maximize		1	0.071428571	7.142857143		2	0.090909091
	Maximize	100	1	0.071428571	7.142857143	3	2	0.090909091
	Maximize	100	1	0.071428571	7.142857143	3	2	0.090909091
	Maximize	100	1	0.071428571	7.142857143	3	2	0.090909091
	Maximize		1	0.071428571	7.142857143	3	2	0.090909091
		100						
Greater than one	e Maximize	0	1	0.071428571	0	2	1	0.045454545
	Maximize		1	0.071428571	0	2	1	0.045454545
		0						
	Maximize		1	0.071428571	7.142857143	2	1	0.045454545
		100						
	Maximize	100	1	0.071428571	7.142857143	2	1	0.045454545
	Maximize	100	1	0.071428571	7.142857143	2	1	0.045454545
	Maximize	100	1	0.071428571	7.142857143	3	2	0.090909091
100) Maximize	98.68	1	0.071428571	7.048571429	3	2	0.090909091
100) Maximize	100	1	0.071428571	7.142857143	3	2	0.090909091
) Minimize	26.32170979	1	0.071428571	1.880122128	2	1	0.045454545
		Sum:	14	Sum:	80.35726498	Sum:	22	Sum:

Final weighted score	Comments								
9.090909091									
9.090909091									
9.090909091									
9.090909091									
9.090909091									
0	Recommend simple scoring here: negative = 0, positive = 50, incrase from base year = 100.								
0									
4.545454545									
4.545454545									
4.545454545									
9.090909091									
8.970909091	Assuming target is 100%								
9.090909091	Assuming target is 100%								
1.196441354	Base year used for now. 0 is the most desireable target. Need to develop a scoring protocol when a target is 0.								
87.44007772									